Final

Memphis Depot

BRAC Cleanup Team

Meeting Minutes

May 19, 2005

BRAC Cleanup Team	**Organization**	**Phone/email**
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Turpin Ballard	Environmental Protection Agency, Region IV (EPA)	404.562.8553
James Morrison	Tennessee Department of Environment and Conservation, Division of Superfund (TDEC)	615.532.0910
Project Team	**Organization**	**Phone**
Tom Holmes	MACTEC Engineering	770.421.3373
Denise Cooper	MACTEC Engineering	901.767.1249
Bruce Railey	Corps of Engineers – Huntsville	256.895.1463
Mike Perlmutter	CH2M Hill	770.604.9095
John K. Miller	Mitretek Systems	703.610.2560

Previous Meeting Minute Approval

The BCT approved and signed the minutes from the April 24, 2005 meeting.

Source Areas Remedial Design (SARD)

CH2M Hill posted the Intermediate SARD (60%) for internal review on April 22. Mr. Holmes reported that upon discussion of the internal comments, the project team suggested the submittal of the Intermediate SARD to the BCT be delayed. The project team based their suggestion on the following:

1) Questions remain regarding extent of loess treatment area and the loess soil vapor extraction (SVE) system;
2) Membrane interface probe (MIP) study moving forward this summer and results could significantly change (anticipate reduce) treatment area and size of SVE system specific to loess; and
3) Save time and money during remedial action.
4) New groundwater monitoring wells are to be installed during summer 2005 to help hone the design.

Mr. Holmes indicated the following recent information led to suggesting the delay at this point:

1) Recent data provides clearer indication of loess' place in the cleanup process as well as the scope of the loess SVE system;
2) SVE will take longer to cleanup the loess than the time to cleanup presented in the Dunn Field Record of Decision (ROD).

Mr. Railey indicated that the COE and CH2M Hill were working the MIP treatability study scope of work and that CH2M HILL would prepare a work plan describing study goals, data quality objectives and sample locations.

Mr. Morrison asked the team if they believed SVE would work in the loess. Mr. Perlmutter responded that the project team believed that SVE would work in loess, but that it would take longer to reach the remedial goals (RGs) than originally thought. He would like to further define the loess treatment areas before submitting the Intermediate SARD as the treatment areas could potentially change significantly between the current Intermediate and the 90% SARD.

Mr. Holmes suggested it was more logical to provide the Intermediate after receipt of the MIP study data when the project team felt more confident about the extent of contamination in the loess. He reported that CH2M Hill would develop and submit a new schedule for achieving the 100% SARD.

Mr. Perlmutter said that CH2M Hill would continue working on the design and that they intended to submit a revised Intermediate for internal review. Mr. Ballard suggested providing the Intermediate SARD information to the BCT via a presentation. The BCT could then provide an onboard review of the information presented and CH2M Hill could prepare the 90% document.

Mr. Dobbs requested that MACTEC provide him a letter regarding the delay of the Intermediate SARD, a secondary document, for his signature that he would then submit to the regulators. Mr. Dobbs then requested that Mr. Miller provide his thoughts regarding the need and rationale to delay the Intermediate SARD.

Mr. Miller reported that the conceptual model did not fully consider contaminant sources in the loess and contaminant concentrations in the fluvial indicate a potential dense non-aqueous phase liquid. He suggested obtaining a better understanding of how much contamination from the loess was contributing to the groundwater plume as that would provide a better understanding of whether the loess or the fluvial was the greater contributor to the groundwater plume. He indicated that if the loess was having minimal impact on groundwater, then the team could re-evaluate whether SVE was the best remedy for the loess. If the MIP study indicates hot spots rather than large diffuse areas, then the team could evaluate other options such as excavation, transportation and disposal of the hot spots.

Mr. Ballard pointed out that that the ROD contained specific cleanup levels for the loess and the fluvial deposits, and that the cleanup will still need to achieve those RGs as determined by soil sample analysis.

Mr. Holmes asked for confirmation that the membrane interface probes would be spaced 40 feet apart. Mr. Miller asked if that would be sufficient to identify hot spots. Mr. Railey and Mr. Perlmutter responded that the initial spacing would be 40 feet and that the method allows the team to make decisions in the field and add locations.

Mr. Dobbs reported that the City Council resolution identifying the entire northern area of Dunn Field for a park, CH2M Hill was evaluating existing data as well as the RGs to assess the human health risk for recreational reuse. Mr. Ballard said that if the RGs would be higher to allow for recreational reuse, then the regulators would want to know why the original evaluation was not sufficient. Mr. Holmes suggested that CH2M Hill might want to review the original risk assessment and collect any other necessary data during the MIP study that would be necessary to perform a more detailed risk assessment.

Mr. Dobbs tasked the team to make sure they had all the data necessary to evaluate the suitability of this area for recreational reuse. He also tasked Mr. Miller to provide questions about the RGs identified in the Dunn Field ROD to the team in order to include it into the MIP study.

AI: MACTEC to provide letter to Mr. Dobbs containing rationale for delaying submittal of the Intermediate SARD to the regulators for review.

AI: CH2M Hill to review previous Dunn Field risk assessment and to incorporate into the MIP study any additional data needs necessary to evaluate human health risk from recreational reuse of the northern end of the Disposal Sites area.

AI: CH2M Hill to develop/revise schedules for MIP study and 100% SARD and provide to BCT.

Off-Depot Groundwater Remedial Design (RD)

Mr. Perlmutter reported that two weeks ago CH2M Hill submitted a request for proposal to four vendors requesting cost estimates for a pilot study to determine the effectiveness of constructing the permeable reactive barrier (PRB) using alternatives to GeoSierra's method such as jetting of zero valent iron (ZVI). The scope of work for the study will have performance criteria that the PRB must meet. Two of the vendors have voiced an interest in the project. Mr. Perlmutter hoped to have something back from them by the next BCT meeting. Mr. Railey said that the COE has resolved some contracting issues so that the contracting process can begin when CH2M Hill receives the cost estimate.

Mr. Holmes confirmed that by next BCT meeting the project team should know if the pilot study of other PRB construction methods is moving forward. CH2M Hill will also provide the preliminary groundwater modeling results at the next BCT meeting. Mr. Holmes and Mr. Perlmutter agreed that they should have sufficient cost estimate and construction method information in order to complete the evaluation.

Mr. Dobbs clarified that if the study indicated the other vendors' methods would not meet the criteria then the COE would negotiate with GeoSierra. Mr. Railey said COE would negotiate with GeoSierra and that the cost estimates from the other vendors for the pilot study could be extrapolated for the full remedial action to be used in the negotiations.

The team then discussed the use of various technologies at different sites as well as quality assurance/quality control elements of the pilot study. The team also discussed other sites where GeoSierra's PRB had been installed and their concerns regarding GeoSierra's guarantee as well as GeoSierra's excessively high cost estimate for participating in the Off Depot Groundwater remedial design process.

Mr. Miller mentioned that he has not heard many positives from other sites that used GeoSierra's process other than summaries provided by GeoSierra. He agreed to research other sites and to

provide an independent review of their process. Mr. Ballard suggested that the project team also evaluate GeoSierra's cost estimates and actual costs at the other sites. Mr. Railey agreed to contact Mr. Jesse Perez of the Air Force Center for Environmental Excellence (AFCEE) to obtain GeoSierra cost information from other projects.

AI: Mr. John Miller to research other sites that utilized GeoSierra's process and provide BCT with review of results.

AI: Mr. Bruce Railey to contact Mr. Jesse Perez for cost information from other projects utilizing GeoSierra's process.

Disposal Sites Remedial Action (RA)

Mr. Holmes reported that of the five sites to be remediated, the planned limits of excavations have been completed at four sites. Following some over-excavation, confirmation samples from three sites were below the RGs and no further excavation was required. The latest confirmation samples from Site 10 still exceeded the RGs; the exceedance was associated with a former burn pit area. Since the area to over excavate was relatively large, MACTEC had submitted a change order to Laguna and AFCEE before proceeding.

The additional work at Site 10 would be coordinated with excavation at Site 3. Regarding Site 3, MACTEC identified the solution in the glass bottles as acidified (low ph) water containing 100-1000 ppm of ortho tolidine. Mr. Holmes indicated the draft work plan addendum for Site 3 called for vermiculite to be used in the excavation to soak up the solution during removal and to avoid mobilization of the water and ortho tolidine through the soil. MACTEC will request a new special waste disposal authorization from TDEC, as it is different from the data provided for the original authorization.

Mr. Ballard voiced concern that the liquid waste should not be handled same as the soil waste. Mr. Holmes reported that MACTEC was still discussing the waste segregation, characterization and disposal procedures to be included in the work plan. MACTEC will submit the work plan to the BCT for review.

Mr. Morrison suggested presenting the information to TDEC Division of Solid Waste, and Mr. Holmes agreed it was part of MACTEC's plan. Mr. Ballard requested that MACTEC evaluate segregating the intact bottles by hand. Mr. Holmes indicated that he understood the concerns and that he would continue to discuss the issue with the team. Mr. Dobbs instructed MACTEC to ensure that the solution met the cleanup requirements and was protective of human health and the environment.

Mr. Dobbs asked about the soil sample results from Site 10 that indicated high levels of VOCs and if MACTEC intended to excavate that entire area. Mr. Holmes responded that the area of high VOCs from the pre-design investigation was separate from the planned area of excavation. He reported that MACTEC was not analyzing confirmation samples for VOCs because that aspect of the action would be addressed by the SVE system. He also conveyed that the air monitoring for VOCs had not exceeded action levels.

AI: MACTEC to review disposal requirements of the ortho tolidine bottles and impacted soil and discuss with TDEC Division of Solid Waste.

Early Implementation of Selected Remedy (EISR)

Mr. Holmes reported that MACTEC was preparing the report and that nothing had changed from the last meeting when he presented the March post injection sampling results. He recounted that the results indicated about a 50% reduction in VOCs in MW155 located in the midst of the treatment area. He indicated that the draft Interim Remedial Action Completion Report (IRACR) was due for submittal to the BCT in mid-June.

Mr. Holmes provided the post injection data to ARS and spoke with the ARS representative who felt the treatment was working properly based on rough calculations. Assuming a 25-foot radius of injection, ZVI would have been distributed through approximately half the EISR area. If the injections reduced concentrations in the 25-foot radius to 0 and groundwater from the untreated spaces between injections was mixing with groundwater in the treated areas, the concentrations would be reduced by half as was observed at MW-155. Mr. Holmes noted that the current spacing of injection points in the SARD was 50 feet, so the 25-foot radius of influence would meet and there would not be as much untreated area.

This information and further evaluation of this information would be included in the EISR IRACR.

Main Installation Remedial Action Work Plan (MI RAWP)

Mr. Holmes reported that he had received EPA and TDEC comments, had distributed the responses to comments and had resolved all the response to comment issues. The next submittal was planned for the end of June.

Mr. Holmes discussed MACTEC's desire to evaluate, and possibly change, the sampling plan portion of the work plan based on concerns raised by Mr. Evan Spann regarding sampling at the Tennessee Air National Guard site as well as the recent cost to complete session with the Defense Logistics Agency. Mr. Holmes indicated that during the cost to complete session the team determined that the sampling program currently proposed in the work plan was more expensive over the period of time than the active portion of remedy and that it exceeded the cost estimate provided in the ROD. He reported that MACTEC was completing the fourth quarter of MI LTM sampling this weekend.

The team discussed other ways to reduce sampling costs. Mr. Holmes asked if sampling needed to include MNA parameters in monitoring wells outside the treatment area. Mr. Ballard noted that the LTM plan contained flexibility to change sampling parameters and frequency and suggested that it was premature to make changes before starting the injections.

The team discussed sampling frequency and protocols and their purposes. Mr. Holmes indicated that MACTEC might not propose anything different if it did not reduce costs, but that he wanted the BCT to be aware that MACTEC was evaluating the plan and intended to add some parameters based on Mr. Spann's concerns.

Mr. Ballard voiced dissatisfaction that MACTEC wanted to make changes after he had reviewed the document, resolved comments and was expecting the final document. Mr. Dobbs explained that the issue came about due to costs in for the out years and that Mr. Holmes needed to evaluate those costs based on the frequency and protocol reductions called for in the plan, not based on costs developed during the cost to complete session.

Mr. Holmes suggested that perhaps he should include the proposed changes in the MI LTM annual report. Mr. Ballard was more inclined to that idea versus delaying the MI RAWP. He also indicated that these sampling protocols were in the MI RD and that the MI RAWP was based on

the RD. Mr. Ballard was not opposed to optimizing program, but he understood that system optimization would occur after the initial injections. Mr. Holmes indicated that he would have sufficient information within the next few weeks upon which to base a decision and would report back to the BCT at the June meeting.

AI: MACTEC to research MI LTM sampling protocols and provide proposed changes at the June BCT.

Dunn Field Groundwater Interim Remedial Action (IRA) System Status

Mr. Holmes reported that all the recovery wells were running. MACTEC performed some additional repairs to flow meters and transducers because they were causing pumps to run without water. Mr. Holmes reported that Mr. Spann had approved proposed IRA sampling procedures for the Operations and Maintenance (O&M) semi-annual sampling. MACTEC would hang PDBs this weekend in the wells agreed upon, would retrieve the bags in three weeks and also hang bags for the October sampling.

Mr. Morrison asked if MACTEC had resolved the issue of getting the pumps back online in a timely manner. Mr. Holmes responded that they had resolved the issue. He said MACTEC would be more diligent about requesting funds and about ensuring sufficient funds were in place. Mr. Dobbs indicated that through monitoring he was hopeful this would not happen again within the confines of this contract vehicle.

Mr. Ballard suggested evaluating the effectiveness of removing contaminants versus the cost of continuing to operate a couple of recovery wells. Mr. Holmes agreed to evaluate the situation.

AI: MACTEC to evaluate cost vs. contaminant removal of the IRA system to determine cost effectiveness of taking some wells offline and provide results to BCT.

Schedule Review

Mr. Holmes distributed the deliverables schedule and reviewed upcoming deliverables. He addressed the Dunn Field Land Use Control Implementation Plan (LUCIP) schedule. Based upon a possible change in the reuse of the northern portion of the Disposal Sites area, the LUCIP would change. CH2M Hill would revise the LUCIP schedule. Mr. Holmes would update the deliverables schedule and would distribute it to the BCT.

AI: CH2M Hill to revise Dunn Field LUCIP deliverable schedule and provide information to MACTEC.

AI: MACTEC to update the deliverables schedule and distribute to BCT.

Community Involvement

The BCT agreed to conduct the MI RA public briefing on Thursday July 21, 2005. Mr. Holmes identified need for a MIP fact sheet in anticipation of the upcoming treatability study at Dunn Field.

Next Meeting

The BCT confirmed the next meeting would be held at Henry Horton State Park outside Nashville, TN, on Wednesday, June 15, 2005.

AI: All team members attending meeting should confirm their reservations at Henry Horton State Park, 800-250-8612.

SIGNED 6/15/05
MICHAEL DOBBS DATE
Defense Distribution Center
BRAC Environmental Coordinator
BRAC Cleanup Team Member

SIGNED 6/15/05
TURPIN BALLARD DATE
Environmental Protection Agency
Federal Facilities Branch
Remedial Project Manager
BRAC Cleanup Team Member

SIGNED 6/15/05
JAMES MORRISON DATE
Tennessee Department of Environment and Conservation
Memphis Field Office
Division of Superfund
BRAC Cleanup Team Member